

LISTING OF THE CLAIMS

The following listing of the claims replaces all prior claim listings and versions in the application:

Claims 1-11 (Canceled)

12. (Currently Amended) A short-pulse laser arrangement comprising:

a resonator comprising resonator components including a laser crystal, a plurality of mirrors including a pump beam coupling-in mirror, a laser beam out-coupling mirror and a multiple reflection telescope for enlarging an effective length of the resonator, a first set of the resonator components having a positive group delay dispersion;

said plurality of mirrors including dispersive mirrors with a negative group delay dispersion for compensating in part the positive group delay dispersion of the first set of the resonator components;

said resonator in operation having a positive net averaged group delay dispersion over an operating wavelength range and the net averaged group delay dispersion is constant over the operating wavelength range, the resonator in operation generating laser pulses having an energy of at least 100 nJ higher than 200 nJ,

wherein the positive net averaged group delay dispersion of the resonator is in a range between 0 and 100 fs².

13. (Canceled)

14. (Currently Amended) The short-pulse laser arrangement of claim 12, wherein the positive net averaged group delay dispersion is in a range between 0 fs² and 50 fs².

15. (Previously Presented) The short-pulse laser arrangement of any one of claims 12 or 14, wherein the multiple reflection telescope comprises at least one of the dispersive mirrors with the negative dispersion.

16. (Previously Presented) The short-pulse laser arrangement of claim 15, wherein all the mirrors of the resonator are the dispersive mirrors with the negative dispersion.

17. (Previously Presented) The short-pulse laser arrangement of any one of claims 12 or 14, the resonator comprising a pair of glass wedges with positive dispersion configured to provide a supplementary dispersion fine adjustment.

18. (Previously Presented) The short-pulse laser arrangement of any one of claims 12 or 14, wherein the laser arrangement is configured to provide passive mode-locking.

19. (Previously Presented) The short-pulse laser arrangement of claim 18, wherein a Kerr-lens mode-locking principle is used for the passive mode-locking.

20. (Previously Presented) The short-pulse laser arrangement of claim 18, comprising a saturable absorber positioned and configured to perform the passive mode-locking.

21. (Previously Presented) The short-pulse laser arrangement of claim 12, wherein an entirety of the negative dispersion of the resonator is determined only by the dispersive mirrors with the negative dispersion.

22. (Currently Amended) The short-pulse laser arrangement of claim 12, wherein the positive net averaged group delay dispersion is between 0 and 50 fs² and is provided over a bandwidth of a laser pulse is ≥ 180 at least 280nm.

23. (Canceled)

24. (New) The short-pulse laser arrangement of claim 22, wherein the positive net averaged group delay dispersion is provided over a bandwidth in a range of 680 nm to 960 nm.